

Office of Enforcement

CHAIN OF CUSTODY RECORD

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

[illegible]

Project No. 02AH70 Project Name AIR 0209018 CHESHIRE MONITORING STUDY 90107A
ARRIVAL DATE: 9/30/2002 DUE DATE: 10/22/2002

Sampler
Mike Murphy

Cooler ID 02AH701 Page 5-140076

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH70D01	D01	23/09/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS VOID	1	5-340306 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH70S01	S01	23/09/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340305 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH70S02	S02	23/09/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	RVHS VOID	1	5-340307 1 to 1

Bottle No. 1

Parameter

PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH70S03	S03	23/09/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	ADDAVILLE	1	5-340308 1 to 1

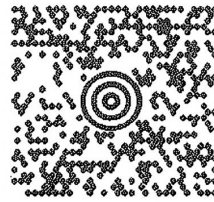
Bottle No. 1

Parameter

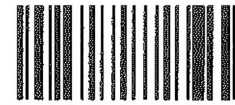
PM10

FROM:
SOUTHEAST DISTRICT OFFICE
(740) 385-8501
OHIO EPA
2195 E. FRONT STREET
LOGAN OH 43138-8637

2 LBS 1 OF 1



IL 606 9-08



SHIP TO:

WILLIAM SARGENT, JR.
USEPA CENTRAL REGIONAL LABORATORY
10 FLOOR
536 SOUTH CLARK STREET
CHICAGO IL 60605

U.S. FEDERAL PROTECTIVE SERVICE

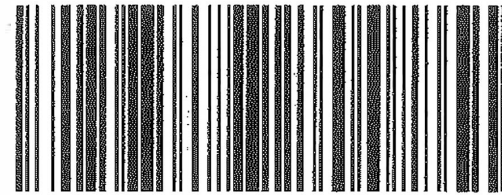
SEP 27 2002

Officer's Initials
536 S. Clark St.

UPS NEXT DAY AIR

TRACKING #: 1Z 401 199 01 4087 8706

1



BILLING: P/P

UOW 41.16 Konica F 19.0A 07/2002

CENTRAL REGIONAL LABORATORY
Data Checklist

Data Set AIR 0209018 Cheshire Monitoring Study
PMT0

- ☒ Chain of Custody
- ☒ Reported in LIMS
- ☒ Transmittal Report w/signatures of the following:
 - Analyst(s)
 - Environmental Data Coordinator

Prepared by: Sylvia Griffin 10-22-02
Environmental Data Coordinator

Revised 11-04-02

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: OCT 22 2002

Subject: Review of Region 5 Data for CHESHIRE MONITORING STUDY

From: Francis A. Awanya, Chemist *FAA*
Region 5 Central Regional Laboratory

To:

Attached are the results for: CHESHIRE MONITORING STUDY

CRL data set number: 0209018

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: 2002AH70D01 and 2002AH70S01.

OCT 22 2002

Data Management Coordinator and Date Received

Date Transmitted: OCT 22/2002

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
ML-10C

Received by and Date

Comments:

CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
B	This flag is used when the analyte is found in the associated <u>B</u> lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
J	This flag is used when the analyte is <u>estimated</u> due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. (<u>J</u> is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
M	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, with a quantity at or above the CRL <u>M</u> ethod Detection Limit (MDL) but below the lowest concentration of the calibration curve. This flag indicates the quantitated value is <u>estimated</u> since it falls below the lowest calibration standard in the calibration curve.
N	This flag applies to GC/MS Te <u>N</u> tatively Identified Compounds (TICs) that have a mass spectral library match.
Q	This flag applies to analyte data that are severely estimated due to quality control and/or <u>Q</u> uantitation problems, but are confirmed to be qualitatively present in the sample. <u>No value is reported with this qualification flag.</u>
R	This flag applies to analyte data that are <u>R</u> ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. <u>No value is reported with this qualification flag.</u>
U	This flag is used when the analyte was analyzed for but <u>U</u> ndetected in the sample. The CRL RL for the analyte accompanies this flag. When the customer requests CRL to report below our RL down to our MDL, undetected analytes are reported with a "U" code and the MDL. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.

03/07/01



Environmental Protection Agency Region 5
Central Regional Laboratory

536 South Clark Street, Chicago, IL 60605
Phone:(312)353-8370 Fax:(312)886-2591

WORK ORDER

Printed: 10/17/02 12:09:06PM

0209018

US EPA Region 5 Central Regional Laboratory

Client: Air Division, US EPA Region 5
Project: Gavin, Cheshire, Ohio

Project Manager: Marilyn Jupp
Project Number: [none]

Report To:

Kathy Triantafillou
Air Division, US EPA Region 5

77 West Jackson Boulevard
Chicago, IL 60605

Phone: (312) 353-4775
Fax: (312) 353-2001

Date Due: Oct-22-02 15:00 (21 day TAT)

Received By: William Sargent

Date Received: Sep-30-02 11:56

Logged In By: William Sargent

Date Logged In: Sep-30-02 12:39

Samples Received at:	°C	Starts 8-3-01
All containers intact:	No	Ends 8-3-02
Sample labels/COC agree:	No	
Samples Preserved Properly:	No	
Custody Seals Present:	No	

Analysis	Due	TAT	Expires	Comments
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0209018-01 2002AH70S01-GHS#3012,PSTG AVG=21.05 [Air Filter] Sampled
Sep-23-02 00:00 Central

PM10	Oct-22-02 12:00	21	Sep-23-03 00:00
------	-----------------	----	-----------------

0209018-02 2002AH70S03-ADDAVILLE,PSTG AVG=20.4 [Air Filter] Sampled
Sep-23-02 00:00 Central

PM10	Oct-22-02 12:00	21	Sep-23-03 00:00
------	-----------------	----	-----------------

Data Set Number:	<u>0209018</u>	Parameter:	<u>Suspended Particles</u>
Facility Name:	<u>CHESHIRE MONITORING STUDY</u>		
Study Name:	<u>CHESHIRE MONITORING STUDY</u>		
Date of Narrative:	<u>10/18/2002</u>	Analyst:	<u>FAA</u>
Prepared by:	<u>FAB</u>	Signature:	<u>FAB</u>

ANALYSIS CASE NARRATIVE

Two (2) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on September 30, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6597446	2002AH70S01	5-340305-1
Q6597460	2002AH70S03	5-340308-1

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 10/15/2002 and was completed on 10/17/2002. All exposed filters were in good conditions.

QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

ENVIRONMENTAL PROTECTION AGENCY
REGION V
CENTRAL REGIONAL LABORATORY
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 09/23/2002 LAB ARRIVAL DATE: 09/30/2002 DUE DATE: 10/22/2002
DU NUMBER: 90101A WORK ORDER NUMBER: 0209018 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY :CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDEDPARTICLE (g/filter)			
1	2002AH70S01	GUIDING HANDS SCHOOL	0.0157			
2	2002AH70S03	ADDAVILLE	0.0235			
DATE OF ANALYSIS			10/15-17/2002			
ANALYST			FAA			

Reviewed by: AA Date: 10 / 22 / 2002

Page 1 of 1

CRL SOP: HK015	Date: 07 January 2000	Revision No: 1
Data review for the Analytical and Inorganic Group		Page __ of __

ATTACHMENT II

CRL Analytical and Inorganics Data Review Checklist

Batch Number: 0209018 Facility: CHESHIRE MONITORING STUDIES
 Parameter: SUSPENDED PARTICLES CRL.SOP: AIG04.1

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	✓	
Preservation Checked?	✓	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	✓	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: FAA Peer Reviewer: AK

Date: 10/18/02 Date: 10/21/2002

Comments Attached? (Y/N) N

Data Set Number:	<u>0209018</u>	Parameter:	<u>Suspended Particles</u>
Facility Name:	<u>CHESHIRE MONITORING STUDY</u>		
Study Name:	<u>CHESHIRE MONITORING STUDY</u>		
Date of Narrative:	<u>10/18/2002</u>	Analyst:	<u>FAA</u>
Prepared by:	<u>FAA</u>	Signature:	<u>FAA</u>

ANALYSIS CASE NARRATIVE

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QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

SAMPLE RESULTS:

All the sample results are acceptable for use.

ELECTRONIC DATA:

No electronic data.

CHESHIRE AIR MONITORING PROJECT

PM10

Parameter: Suspended Particles

Work Ordert Numbers:

0208008, 0209001, 0209002, 0209015, 0209015, 0209016, 0209017, 0209018, 0210005

Date of Analysis 8/16/2002

Analyst: FAA

BALANCE VERIFICATION:

Standard Weights	Balanced weight	Differences
Actual (g)	Balanced (g)	(g)
Limit +/-0.0005 g		
1.0000	1.0000	0.0000
2.0000	2.0000	0.0000
5.0000	4.9998	0.0002

QC-SUMMARY FOR EXPOSED FILTERS

Filter ID	CRL Sample	Sampling	ANALYST	Exposed
Number	I.D Number	Date		weight (g)
Q6597484	2002AH64S01	08/18/02	Analyst 1	4.4425
Q6597484	2002AH64S01	08/18/02	Analyst 2	4.4430
Differences (Limit +/- 5 mg).....				-0.0005
Q6597471	2002AH65S02	08/24/02	Analyst 1	4.4799
Q6597471	2002AH65S02	08/24/02	Analyst 2	4.4800
Differences (Limit +/- 5 mg).....				-0.0001

**CHESHIRE AIR MONITORING PROJECT
PM10**

Filter ID	CRL Sample	Sampling	Station	Sampler	Pstg	P1/Pa	Total	Pre Weight	Exposed	Weight	PM10
Number	I.D Number	Date	Location	SN	Avg		Volume (M^3)	of filters (g)	weight (g)	Gain	(UG/M^3)
Work Order Number 0208008											
Q8609567	2002AH62D01	08/06/02	Guiding Hands School	3012	16.10		0.00	4.3699	4.4610	0.0911	ERR
Q8609568	2002AH62S01	08/06/02	Guiding Hands School	3013	16.30		0.00	4.3413	4.4385	0.0972	ERR
Q6597482	2002AH62S02	08/06/02	RVHS	-	20.00		0.00	4.4009	4.4795	0.0786	ERR
Q6597481	2002AH62S03	08/06/02	Addaville	-	20.50		0.00	4.4009	4.4221	0.0212	ERR
Work Order Number 0209001											
Q6597480	2002AH63D01	08/12/02	Guiding Hands School	3013	20.45		0.00	4.4166	4.4776	0.0610	ERR
Q6597479	2002AH63S01	08/12/02	Guiding Hands School	3012	20.90		0.00	4.4190	4.4659	0.0469	ERR
Q6597493	2002AH63S02	08/12/02	RVHS	-	21.10		0.00	4.4035	4.4594	0.0559	ERR
Q6597489	2002AH63S03	08/12/02	Addaville	-	20.80		0.00	4.4134	4.4632	0.0498	ERR
Work Order Number 0209002											
Q6597488	2002AH64D01	08/18/02	Guiding Hands School	3013	20.95		0.00	4.4444	4.4624	0.0180	ERR
Q6597484	2002AH64S01	08/18/02	Guiding Hands School	3012	20.85		0.00	4.4140	4.4425	0.0285	ERR
Q6597486	2002AH64S02	08/18/02	RVHS	-	21.05		0.00	4.3839	4.3995	0.0156	ERR
Q6597487	2002AH64S03	08/18/02	Addaville	-	18.85		0.00	4.4050	4.4266	0.0216	ERR
Work Order Number 0209015											
Q6597485	2002AH65D01	08/24/02	Guiding Hands School	3012	20.20		0.00	4.4080	4.4662	0.0582	ERR
Q6597490	2002AH65S01	08/24/02	Guiding Hands School	3013	20.05		0.00	4.3813	4.4362	0.0549	ERR
Q6597492	2002AH65S02	08/24/02	RVHS	-	20.10		0.00	4.4290	4.4850	0.0560	ERR
Q6597471	2002AH65S03	08/24/02	Addaville	-	20.50		0.00	4.4502	4.4799	0.0297	ERR
Work Order Number 0209016											
Q6597491	2002AH66D01	08/30/02	Guiding Hands School	3012	20.30		0.00	4.4264	4.4412	0.0148	ERR
Q6597494	2002AH66S01	08/30/02	Guiding Hands School	3013	20.90		0.00	4.4152	4.4529	0.0377	ERR
Work Order Number 0209017											
Q6597467	2002AH67D01	09/05/02	Guiding Hands School	3012	21.35		0.00	4.4111	4.4445	0.0334	ERR
Q6597466	2002AH67S01	09/05/02	Guiding Hands School	3013	20.75		0.00	4.4130	4.4383	0.0253	ERR
Q6597464	2002AH67S02	09/05/02	RVHS	-	21.15		0.00	4.4320	4.4724	0.0404	ERR
Q6597465	2002AH67S03	09/05/02	Addaville	-	21.10		0.00	4.4245	4.4566	0.0321	ERR
Work Order Number 0209018											
Q6597446	2002AH70S01	09/23/02	Guiding Hands School	3012	21.05		0.00	4.4275	4.4432	0.0157	ERR
Q6597460	2002AH70S03	09/23/02	Addaville	-	20.40		0.00	4.4310	4.4545	0.0235	ERR
Work Order Number 0210005											
Q6597455	2002AH71D01	09/29/02	Guiding Hands School	3012	21.35		0.00	4.4549	4.4918	0.0369	ERR
Q6597454	2002AH71S01	09/29/02	Guiding Hands School	3013	20.50		0.00	4.4837	4.5210	0.0373	ERR
Q6597457	2002AH71S02	09/29/02	RVHS	-	20.55		0.00	4.4527	4.4868	0.0341	ERR
Q6597456	2002AH71S03	09/29/02	Addaville	-	20.35		0.00	4.4566	4.4889	0.0323	ERR

Filter
ID.TARE
Weight (g)Dup
Wt (g)Exposed
Wt (g)Exposed
Wt (g) - dup

Comment

F

Q6597467

4.4111

4.4445

Q6

Q6597466

4.4130

4.4383

Q6

Q6597465 -

4.4245

4.4250 12

4.4566

Q6

Q6597464

4.4220

4.4724

Q6

Q6597463

4.4025

Q6

Q6597462

4.4330

Q6

Q6597461

4.4272

Q6

Q6597460

4.4310

4.4545

Q6

Q6597459

4.4555

Q6

Q6597458

4.4582

Q6

Q6597457

4.4527

4.4868

Q6

Q6597456

4.4566

4.4889

4.4889 M.

Q6

Q6597455

4.4549

4.49138 ^{FAA} 10/11/02

Q6

Q6597454

4.4837

4.5210

Tear in
the middle

Q6

Q6597453

4.4735

Q6

Q6597452

4.4408

Q6

Q6597451 -

4.4470

4.4473 12

Q6

Q6597450

4.4630

Q6

Q6597449

4.4365 ^{no.} 1

Q6

Q6597448

4.4437

Q6

Q6597447

4.4437

Q6

Q6597446

4.4275

4.44302 ^{FAA} 10/11/02

Q6

Q6597445 -

4.4067

4.4071 12

Q6

Q6597444

4.4299

Q6

Q6597443

4.4320

COMMENTS:

STD _____ ACTUAL _____ PM-10 _____ $\mu\text{g}/\text{m}^3$
 FLOW _____ m^3/min TOTAL FLOW _____ m^3 SAMPLE WT _____ g
 ELAPSED TIME _____ MINUTES PRESS _____ mmHg INITIAL WT _____ g
 AVG. RECORDER RESP. _____ TEMP _____ °C FINAL WT _____ g
 TSP _____ SITE _____ GHS # 3012 Q6597445
 PM-10 _____ AIRS _____ OPERATOR DEPA DATE 9-23-02

US EPA Region 5 Field Sample



5-340305-1

Parameters PM10

AIR 0209018

Preservative None S M MD B D

Sample ID 02AH70S01 X

Sampler M.J. Mung

Date 9-23-02

Am 0209078

Parameters PM10

2-340308-1

US EPA Region 5 Field Sample

PM-10 ☒ SAROAD OPERATOR CEP DATE 9-23-02

TSP SITE Address: Q657740

AVG. RECORDER RESP. 20.4 TEMP C FINAL WT g

ELAPSED TIME	MINUTES	PRESS	mmHg	INITIAL WT	g
0					
15					
30					
45					
60					
75					
90					
105					
120					
135					
150					
165					
180					
195					
210					
225					
240					
255					
270					
285					
300					
315					
330					
345					
360					
375					
390					
405					
420					
435					
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630					
645					
660					
675					
690					
705					
720					
735					
750					
765					
780					
795					
810					
825					
840					
855					
870					
885					
900					
915					
930					
945					
960					
975					
990					
1005					
1020					
1035					
1050					
1065					
1080					
1095					
1110					
1125					
1140					
1155					
1170					
1185					
1200					
1215					
1230					
1245					
1260					
1275					
1290					
1305					
1320					
1335					
1350					
1365					
1380					
1395					
1410					
1425					
1440					
1455			</		

FLOW	m ³ /min	TOTAL FLOW	m ³	SAMPLE WT	g

ACTUAL	PM-10	$\mu\text{g}/\text{m}^3$
STD		

COMMENTS:

LED ITS (ED(g))	General INFO	STANDARD weights (g) (Actual)	Balanced weights (g) (Balanced)
01(mg)	Mettler A6285 S/N 1120181838 10/09/02 AJ.	100.00 mg	100.00 mg
01(mg)		200.00 mg	200.00 mg
01(mg)		500.00 mg	500.02 mg
02 g		20.0 g	20.0003 g
02 g		50.0 g	50.0002 g
02(g)	Mettler A6285 S/N 1120181838 10/10/02 AJ.	100.0 g	100.0000 g
02(g)		100. mg	100.01 mg
		200. mg	200.07 mg
		500. mg	499.93 mg
		20 g	20.0000 g
5 mg	SARTORIUS 37010119 10/10/10/11/02 FAA	52 g	49.9999 g
2 mg		100. g	100.0001 g
1 mg		1.0000	0.9998
1(g)		2.0000	1.9999
2(g)		5.0000	5.0001
6(g)	Mettler A6285 S/N 1120181838 10/15/02 AJ.	FAA	FAA
102		100 mg	99.98 mg
mg		200 mg	99.99 mg
mg		500 mg	FAA
mg		20 g	200.00 mg
2(g)	Mettler A6285 S/N 1120181838 10/16/02 AJ.	500.03 mg	500.03 mg
2 g		20 g	20.0002
3 g		50 g	50.0006
		100 g	100.0001
		100 mg	99.98 mg
g)	SARTORIUS 37010119 10/17/02 FAA	200 mg	200.05 mg
mg)		500 mg	500.02
mg)		20 g	20.0002 g
g)		50 g	50.0001 g
(g)		100 g	100.0001 g
	SARTORIUS 37010119 10/17/02 FAA	1.0000	1.0000
		2.0000	2.0000
		5.0000	4.9998

